

3. The alloy of claim 1 containing about 30% to 42% nickel, about 20% to 32% chromium, one of columbium 0.2% to 1.0%, 0.2% to 4.0% tantalum and 0.05% to 1.0% vanadium, about 0.02% to 0.15% carbon.

4. The alloy of claim 3 further comprising at least one of up to 1% aluminum, up to 3% silicon, up to 2% manganese, up to 0.02% boron, up to 0.2% zirconium, up to 5.0% cobalt, up to 2.0% total molybdenum plus tungsten and up to 0.1% total yttrium, lanthanum, cerium and other rare earth metals.

5. The alloy of claim 3 also comprising molybdenum and tungsten at a combined weight percent in the range of 2.0% to 12%.

6. The alloy of claim 3 also comprising at least one of up to 0.5% aluminum, an effective addition of titanium up to 0.10% to provide beneficial strengthening effects at elevated temperatures, 0.25% to 1.0% silicon, 0.35% to 1.2% manganese, up to 0.015% boron and up to 0.1% total yttrium, lanthanum, cerium and other rare earth metals.

7. The alloy of claim 3 also comprising from about 1.0% to 3.0% silicon.

8. The alloy of claim 1 also comprising molybdenum and tungsten at a combined weight percent in the range of 2.0% to 12%.

9. The alloy of claim 1 also comprising from about 1.0% to 3.0% silicon.

10. The alloy of claim 1 also comprising from about 0.25% to 1.0% silicon.

11. The alloy of claim 1 produced as a casting.

12. A metal alloy comprised of in weight percent about 30% to 42% nickel, about 20% to 32% chro-

mium, at least one of 0.2% to 1.0% columbium, 0.2% to 4.0% tantalum, and 0.05% to 1.0% vanadium, up to 0.2% carbon, about 0.05% to 0.50% nitrogen, an effective addition of titanium up to 0.2% to provide beneficial strengthening effects at elevated temperatures and the balance being iron plus impurities wherein  $(C+N)_F$  is greater than 0.14% and less than 0.29%,  $(C+N)_F$  being defined as

$$(C+N)_F = C - \frac{Cb}{9} - \frac{V}{4.5} - \frac{Ta}{18} + N - \frac{Ti}{3.5}$$

13. The alloy of claim 12 further comprising at least one of up to 1% aluminum, up to 3% silicon, up to 2% magnesium, up to 0.02% boron, up to 0.2% zirconium, up to 5.0% cobalt, up to 2.0% total molybdenum plus tungsten and up to 0.1% total yttrium, lanthanum, cerium and other rare earth metals.

14. The alloy of claim 12 also comprising molybdenum and tungsten at a combined weight percent in the range of 2.0% to 12%.

15. The alloy of claim 12 also comprising at least one of up to 0.5% aluminum, an effective addition of titanium up to 0.10% to provide beneficial strengthening effects at elevated temperatures, 0.25% to 1.0% silicon, 0.35% to 1.2% manganese, up to 0.015% boron and up to 0.1% total yttrium, lanthanum, cerium and other rare earth metals.

16. The alloy of claim 12 also comprising from about 1.0% to 3.0% silicon.

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